

## PRECIPITATION.

The rainfall during the month was probably near the normal considering the country as a whole, though poorly distributed as a rule. In general there was less than the normal amount from central Montana and northern Wyoming eastward to the Great Lakes, over the Atlantic States from Maine to Florida, and over the Great Plains from the southern portions of Kansas and Missouri to the Gulf and Rio Grande. Over the Plateau States and from the middle Rocky Mountains eastward to Lake Michigan and the Ohio Valley the precipitation was above normal, usually by considerable amounts. In eastern Colorado and portions of Nebraska, South Dakota and Iowa rains were frequent and heavy, and the totals for the month were in many cases the greatest of record for August. In Colorado rain occurred in some portions of the State on every day of the month, and the total for the State was the greatest ever known in August.

The greatest monthly fall at any station was 14.30 inches at Georgetown, S. C., and amounts above 10 inches were reported from one or more points in nearly half the States. The range between the greatest and

least amounts was unusually large, thus indicating a very uneven distribution within the States.

## SNOWFALL.

Snow was reported from some of the mountains of Wyoming and Montana, on the 1st, but records available do not show that it occurred elsewhere.

The supply of water for irrigation and hydroelectric power in California was low, but sufficient for present needs. Elsewhere in the West the supply of water was generally sufficient.

## RELATIVE HUMIDITY.

On account of the prevailing high temperatures in portions of the middle and southern Great Plains, the relative humidity over this area ranged from 5 to 15 per cent less than normal, and there was a general deficiency from the upper Mississippi Valley eastward to New England. In other parts of the country more humid conditions prevailed and there was a decided excess in the Rocky Mountain and portions of the Plateau regions.

## SEVERE LOCAL STORMS, AUGUST, 1923.

[The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A more complete statement will appear in the Annual Report of the Chief of Bureau.]

Place.	Date.	Time.	Width of path (yards).	Loss of life.	Value of property destroyed.	Character of storm.	Remarks.	Authority.
Modena, Utah (near).....	1	P. m.....	.....	.....	.....	Thunderstorm and hail.	High water resulted in washing out fences and crops and overflowing railroad track.	Official, U. S. Weather Bureau.
Yankton, S. Dak., and vicinity.	3	9:35-10:50 p. m.	.....	.....	.....	Thunderstorm....	Much damage to wires and poles, trees, and signs; minor damage to some buildings; corn blown down; 2 persons injured.	Official, U. S. Weather Bureau. Press and Dakotan (Yankton, S. Dak.).
Garden City, Kans.....	4	P. m.....	.....	.....	.....	Wind and hail....	Crops severely damaged.....	Official, U. S. Weather Bureau.
Leoti, Kans.....	4	5 p. m.....	.....	.....	.....	Tornado.....	Whole town practically destroyed; several persons injured.	Official, U. S. Weather Bureau. Wichita Beacon.
Terre Haute, Ind., and adjacent country.	4	5-8 p. m....	.....	.....	.....	Thunderstorm....	Communication crippled and car service interrupted for several hours; other minor damage.	Official, U. S. Weather Bureau. Star (Terre Haute, Ind.).
Beech Grove, Ky. (vicinity of) Central Illinois.....	4-5	A. m.....	.....	.....	.....	Wind and rain... Electrical and wind.	Considerable damage to barns and crops..... Communication and transportation lines damaged; corn blown down and trees uprooted or broken; other minor damage.	Inquirer (Owensboro, Ky.) Official, U. S. Weather Bureau. State register. (Springfield, Ill.).
West Springfield, Mass.....	5	2:30 p. m....	67	.....	.....	Tornado.....	Many buildings demolished and others unroofed and some minor property damage; a number of people were injured; length of path one-half mile.	Official, U. S. Weather Bureau. Springfield Daily Republican.
Bridgewater and Middleboro, Mass.	5	.....	.....	.....	.....	Wind.....	Trees blown down and corn and potatoes damaged.	Official, U. S. Weather Bureau.
Charles City, Iowa, and vicinity.	6	7:45-9 p. m.	.....	.....	\$8,000	Thunderstorm....	Residence damaged, and barn destroyed by lightning.	Do.
Nashville, Tenn.....	6	.....	.....	.....	.....	Electrical and wind.	700 poles disabled, traffic suspended, and several buildings slightly damaged.	Do.
Terre Haute, Ind.....	7-8	.....	.....	.....	.....	Thunderstorm....	Much damage by wind and lightning.....	Do.
St. Louis, Mo.....	8	.....	.....	.....	.....	do.....	Streets and cellars flooded; telephone service crippled and street-car operation suspended for several hours.	Do.
Chicago, Ill.....	11	.....	.....	.....	.....	Electrical.....	Several persons and a number of buildings struck by lightning.	Do.
Dubuque, Iowa.....	11	10 p. m....	.....	.....	.....	Wind.....	Details not reported.....	Do.
Fort Covington, N. Y.....	12	.....	.....	.....	20,000	Wind and hail....	Crops, silos and building damaged.....	Do.
Indianapolis, Ind.....	12	A. m.....	.....	.....	.....	Thunderstorm....	Minor damage reported.....	Do.
Concordia, Kans., and vicinity	14	7:52-9:47 p. m.	.....	.....	.....	do.....	Chimney destroyed by lightning; 6 head of cattle killed.	Do.
Memphis, Tenn.....	17	7-8 p. m....	.....	.....	.....	Electrical and rain	About 500 telephones put out of use and many trees uprooted; several persons injured.	Commercial Appeal (Tennessee). Official, U. S. Weather Bureau.
Niagara and Orleans Counties, N. Y.	21	.....	.....	.....	.....	Gale.....	Fruit crops heavily damaged; some minor damage.	Do.
Indianapolis, Ind.....	21	1-4 p. m....	.....	.....	.....	Thunderstorm....	Communication lines disabled; trees and signs blown down; several killed or injured by lightning; many streets and basements flooded.	Do.
Rochester, N. Y.....	21	P. m.....	.....	.....	.....	Wind.....	Electric systems damaged; navigation on Lake Ontario hindered.	Do.
Cincinnati, Ohio.....	26	P. m.....	.....	.....	.....	Thunderstorm and hail.	Damage principally to windows, lamps, and skylights.	Do.
Indianapolis, Ind.....	27	A. m.....	.....	.....	.....	Thunderstorm....	Two barns struck by lightning; some damage to wires.	Commercial Tribune (Ohio). Official, U. S. Weather Bureau.
Levy, N. Mex.....	27	P. m.....	.....	.....	.....	Wind, rain, and hail.	Damage by flooding.....	The Journal (Albuquerque, N. Mex.).
Chicago, Ill.....	27	A. m.....	.....	.....	.....	Wind, rain, and electrical.	Telephone and electric power lines torn down; basements and subways flooded; numerous fires reported from lightning.	Daily Journal (Chicago, Ill.).
San Francisco, Calif. (vicinity of).	28	.....	.....	.....	500,000	Thunderstorm....	Standard Oil tanks in San Pablo struck by lightning; minor damage in other near by points.	Official, U. S. Weather Bureau.
Savannah, Ga.....	30	.....	.....	.....	.....	Wind.....	Considerable property damage.....	Do.